Geometry Date_____ 1.3 Assignment
Segments and Their Measures (pp 17-20)

1. What is your name?

Draw a sketch of the three collinear points. Then write the Segment Addition Postulate for the points.

2. D is between T and Q.

3. M is between Q and N.

4. L is between T and W.

5. A is between X and Y.

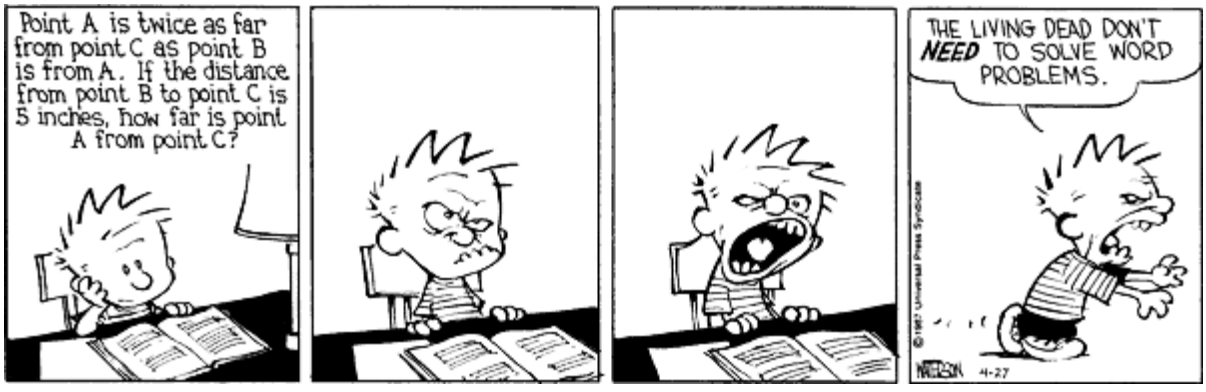
S is between T and V. R is between S and T. T is between R and Q. QV = 23, QT = 8, and TR = RS = SV. Make a sketch and answer the following.

6. Find RS.

7. Find QS.

8. Find TS.

9. Find TV.



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Suppose J is between H and K. Use the Segment Addition Postulate to solve for x. Then find the length of each segment.

10. $HJ = 3(x+2)$
    $JK = 3x-4$
    $KH = 44$

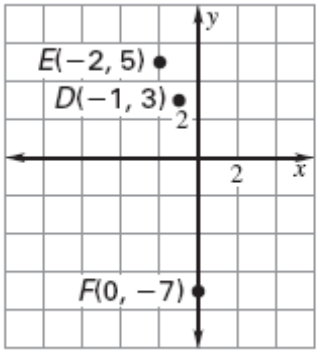
11. $HJ = 8x-3$
    $JK = 12x-5$
    $KH = 112$

$HJ = \frac{1}{3}x+4$

12. $JK = 2x+\frac{2}{3}$
    $KH = 2\frac{2}{3}x+1$

Find the distance between each pair of points.

13. D(-1, 3), E(-2, 5), F(0, -7)



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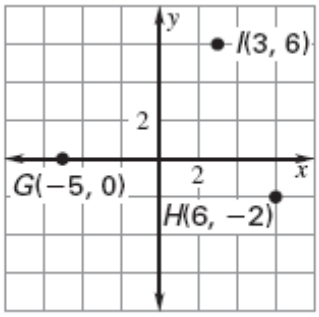
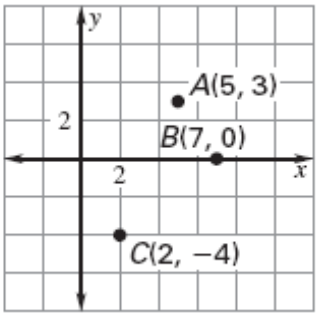
14. G(-5, 0), H(6, -2), & I(3, 6)



15. A(5, 3), B(7, 0), & C(2, -4)



Use the Distance Formula to decide whether $\overline{AB} \cong \overline{BC}$.

16. $A(0,-1)$, $B(-2,-4)$, $C(-4,-7)$

17. $A(-3,1)$, $B(1.5,-1.5)$, $C(6,-3.5)$

18. $A(4,2)$, $B(-1,-1)$, $C(-6,-4)$

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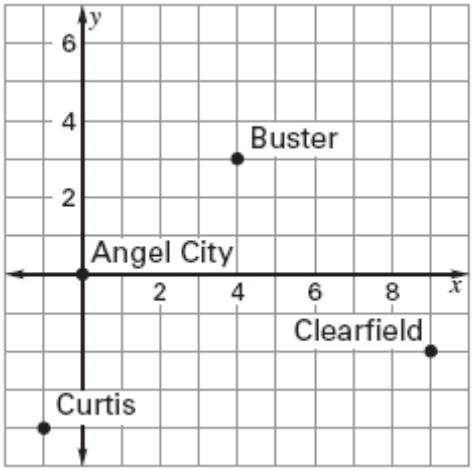
19. _____ Multiple Choice: The map is being used to plan a 26.3 mile marathon. Coordinates are given in miles. The locations of the participating towns on the map are: Angel City (0, 0), Buster (4, 3), Clearfield (9, -2), and Curtis (-1, 4).
Which of the following planned routes is nearest to the 26.3 mile requirement?

A. Curtis to Clearfield to Angel City to Curtis
B. Curtis to Clearfield to Buster to Angel City to Curtis
C. Curtis to Buster to Clearfield to Curtis
D. Curtis to Buster to Angel City to Clearfield to Curtis



<u>Review.</u>
Sketch the next figure in the pattern. *(Chapter 1 Section 1)*

20.

21.

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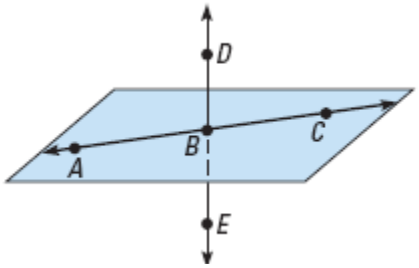
Determine if the statement is *true* or *false*.

(Chapter 1 Section 2)



22. _____ E lies on $\overleftrightarrow{BD}$.

23. _____ E lies on $\overrightarrow{BD}$.

24. _____ *A*, *B*, and *D* are collinear.

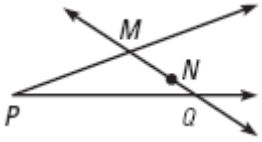
25. _____ $\overrightarrow{BD}$ and $\overrightarrow{BE}$ are opposite rays.

26. _____ B lies on plane ADC.

27. _____ The intersection of $\overleftrightarrow{DE}$ and $\overleftrightarrow{AC}$ is B.

Name the ray described.

28. Name a ray that contains *M*.



29. Name a ray that has *N* as an endpoint.

30. Name two rays that intersect at *P*.

31. Name a pair of opposite rays.